POWER PCB

MAIN PCB

LVDS CABLE

DRIVER BOARD

SPEAKER

T-CON PCB (under shield)

SPEAKER

SERVICE BULLETINS

No Bulletins on GSPN as of 12/28/11 but see new 2010 LCD chart for all models.

Version		Parts No	Short Description
ALL		BN44-00341A	Power PCB
ALL		BN96-13022C	Function & IR PCB
ALL		BN94-03983C	Main PCB
ALL		BN07-00832A	Panel
ALL		BN81-04157A	T-CON PCB
ALL		BN61-06028A	Stand Guide Neck
ALL		BN96-12768A	Rear Cover
ALL		BN96-12786A	Front Cover
ALL		BN96-12795A	Stand Guide
ALL		BN96-12795A	Stand Base
ALL		BN40-00163A	Tuner
ALL		BN96-12837B	Speaker
ALL		BN96-13171V	LVDS Cable
ALL		3903-000467	Power Cord
ALL		BN59-00996A	Remote
ALL		BN63-01798B	Cleaning Cloth

HELP : 1-888-751-4086; 1-866-894-0637 (FE)
GSPN
http://gspn3.samsungcsportal.com

PLUS ONE
http://my.plus1solutions.net/clientPortals/samsung

HOT TIPS
Power On Problems: (see **page 2**)
Video Problems: (see **pages 3,4**)
TIP: After replacing Main/Panel picture is upside down.
Fix: Test Mode/Mirror Option/Toggle

FIRMWARE
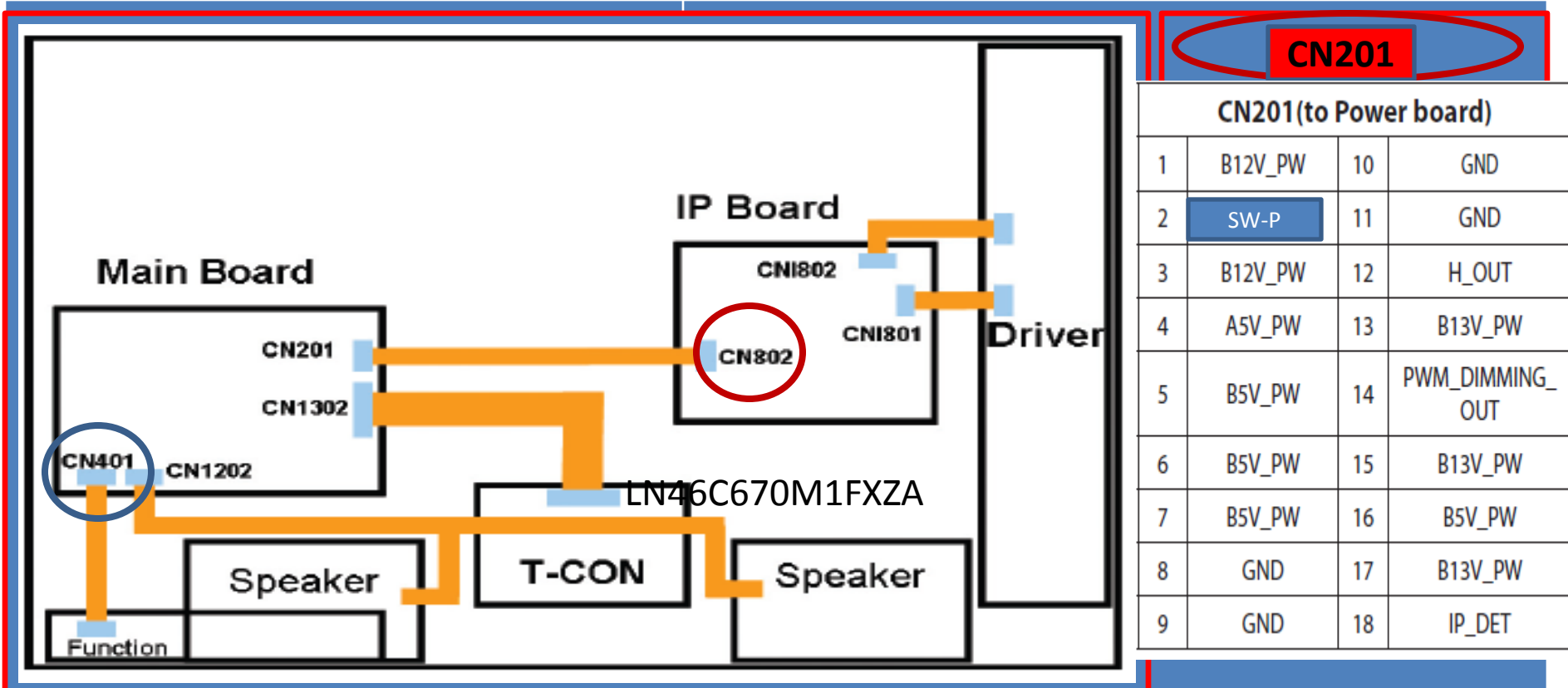
10/18/2010
Firmware for SX1 & X4 Model
-. Version : 1016.3 (SX1), 2006.0 (X4)
-. Folder Name: T-TDT5AUSC / T-MSX5AUSC

Description
This firmware will prevent below problems
. Distorted picture on 70 Hz, 75 Hz
. Distorted picture on DTV PIP with 1080i mode

CN201

\	CN201(to Power board)		
1	B12V_PW	10	GND
2	SW-P	11	GND
3	B12V_PW	12	H_OUT
4	A5V_PW	13	B13V_PW
5	B5V_PW	14	PWM_DIMMING_OUT
6	B5V_PW	15	B13V_PW
7	B5V_PW	16	B5V_PW
8	GND	17	B13V_PW
9	GND	18	IP_DET

IP Board

CNI802

CNI801

Driver

Main Board

CN201

CN1302

CN802

CN401   CN1202

LN46C670M1FXZA

Function

Speaker

T-CON

Speaker

Power On Sequence (approximate Voltages)
1. **Standby Voltages: CN201-4 (5V)**
2. **Power On CN201-2 (0 – 3V)**
3. **Low Voltage Supplies On CN201-1,3,5,7,13,15,17 (Volts Listed on CN802)**
4. **Back Light On CN201-16 (0-3V, delayed)**
5. **Back Light Confirm CNI802- (FB1 & FB2)**
6. **Dimming Signal CN201-14 (1V–4V approx)**

To Force Backlight On without Main Board :
1. Remove Power Cord
2. Remove CN802
3. Plug Power Cord In.
4. Backlight should be on immediately.

\	CN401(to Function/IR)		
1	IR	6	KEY_INPUT1
2	GND	7	KEY_INPUT2
3	A3.3V_PW	8	LED_STB
4	MSCL_A5V	9	LED_CNTR
5	MSDA_A5V	10	A3.3V_PW

TROUBLESHOOTING VIDEO PROBLEMS

1. Verify Video Operation
a. **Customer Picture Test** (models available)
b. **"Display"** (If display is OK source is suspected)
C. Substitute with known good Source
  (**external DVD or Signal Generator**)

2. Using Test Patterns in Service Mode

- ENTER SERVICE MODE –

1. Select an active source signal. (HDMI preferred)
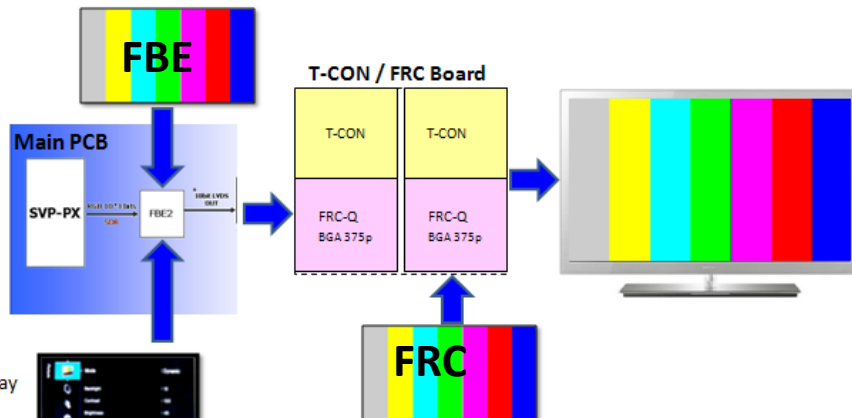   Test Pattern may rely on signal source to appear.

| Customer Remote		Service Remote	
2.	Power off	**2.**	Power On
3.	Mute, 182, Power	**3.**	Info, Factory

2010 Models with FRC 120Hz/240Hz

LCD Signal Path for Troubleshooting

FBE

Main PCB

SVP-PX — FBE2

T-CON / FRC Board

| T-CON | T-CON |
| FRC-Q BGA 375p | FRC-Q BGA 375p |

FRC

Display

Customer Picture Test

1. Check OSD & Customer Picture Test.
2. Access SVC Mode (with source signal)
3. Activate **FBE** Test Patterns & Verify.
4. Activate **FRC** Test Patterns & Verify.

T-Con Troubleshooting

Pin #1~5   F1
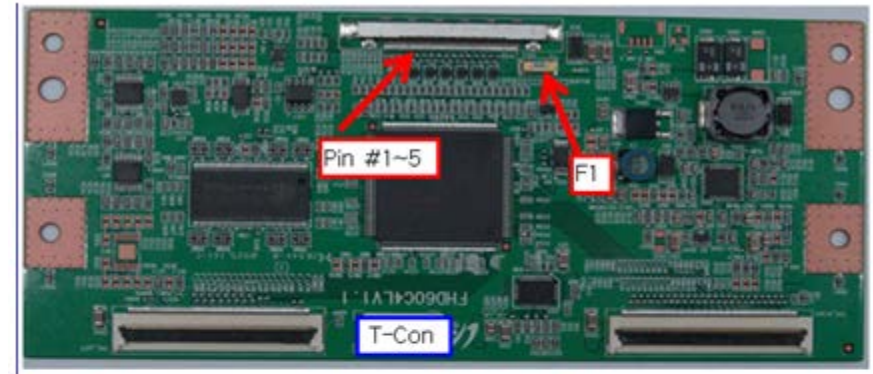
T-Con

Check for 13V supply to Pins 1-5 and LVDS Side of F1 Fuse, if 13V is **NOT** present.... → NO → Check for defective LVDS Cable or 13V feed error.
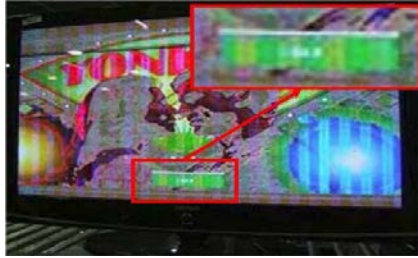
YES

if 13V IS present but NOT on both sides of F1 fuse (Open Fuse).... → NO → Change T-Con Board

3

SAMSUNG

ON SCREEN FAILURE EXAMPLES:

If Picture & Display errors
Defective Main Board, LVDS,
or T-CON

Green lines or a green screen
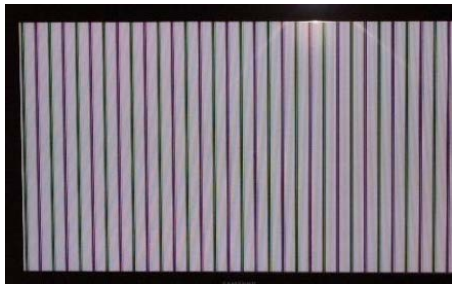defective main board , LVDS , or
T-CON.

Original Image   **Image on Screen**

Pixelization can be caused by the main board
but is more commonly a source error

Vertical or Horizontal Lines :Defective
Panel likely but also T-CON, LVDS, or Main
Board. Use Test Patterns in Factory Service
Mode to determine error)

ALIGNMENTS:

1. Check/Set Option Bytes:

Using the Customer Remote
1. Turn the power off and set to stand-by mode
2. Press the remote buttons in this order; POWER OFF-MUTE-1-8-2-POWER ON to turn the set on.
3. The set turns on and enters service mode. This may take approximately 20 seconds.
4. Press the Power button to exit and store data in memory.
   - If you fail to enter service mode, repeat steps 1 and 2 above.
5. Initial SERVICE MODE DISPLAY State

Project	PB5G	PB5G	PB5G
Model	B550	B550	B550
Model Code	PN50B550T2FXZA	PN58B550T2FXZA	PN63B550T2FXZA
No.	ITEMS		
1	Factory Reset	-	-	-
2	Type	50FSpL4	58FNfK1	63FMeK1
3	Model	PB550	PB550	PB550
4	TUNER	ALPS	ALPS	ALPS
5	Region	US	US	US
6	DDR	SAMSUNG	SAMSUNG	SAMSUNG
7	Light Effect	Off	Off	Off
8	Inch	50"	58"	63"
9	Exhibition Mode	Off	Off	Off

Option Bytes

Factory Reset	
Type	50HSnB4
Model	PB550
TUNER	ALPS
Region	US
DDR	SAMSUNG
Light Effect	Off
Inch	50"
Exhibition Mode	Off

Model Code	Front Color	Type	Model	Tuner	Region	Side Label
LN46C530F1FXZA	S-R-Black	46L6AF0C	LC530	Semco	US	AA05

2. Check/Perform Firmware Upgrade for all repairs.

3. Perform reset in Service Mode & Plug and Play if Main board is replaced.

SPECIAL NOTES:

Inform customer of reset of all
Settings if Main Board or Panel is replaced.